

Claims:

1. through 47. (cancelled).

48. (new) A portable data acquisition unit configured to collect patient breathing information during a sleep session, comprising:

- a. a solid state pressure sensor including strain gauges for producing signals indicating pressure at one or more air passages of the patient directly proportional to positive or negative flow of air through said air passage(s);
- b. means for sampling said signals at a rate of between 6,000 and 10,000 samples per second;
- c. a digital to analogue converter which converts the signal samples to digital signals;
- d. a microprocessor that receives the digital signal samples and determines clock times associated with each sample; and
- e. an interface configured to transfer pressure and time data to another device.

49, (new) A portable data acquisition unit configured to collect patient information during a sleep session, the unit comprising:

- a. a housing configured to be attached to a patient or clothing of the patient;
- b. a solid state pressure sensor that is configured to measure pressure signals corresponding to positive or negative air flow collected by a patient interface positioned adjacent to the nostrils of the patient;
- c. an amplifier that amplifies the pressure signals measured by the pressure sensor;

- d. a sampling circuit for sampling the amplitude of said amplified pressure signals at a rate of between 6,000 and 10,000 samples per second;
- e. an analog-to-digital converter that converts the amplified pressure signal samples into digital signals;
- f. a microprocessor that receives the digital signals from the analog-to-digital converter and determines clock times associated with the digital signals;
- g. a battery that powers the data acquisition unit; and
- h. an interface configured to transfer pressure and time data to from the data acquisition unit to another device.

50. (new) The portable data acquisition unit of claim 49, wherein the housing is configured to mount to an arm of the patient using an arm band.

51. (new) The portable data acquisition unit of claim 50, wherein the microprocessor is a digital signal processor including a non volatile memory including an algorithm that is configured to analyze pressure and time data to identify sleep disordered events.

52. (new) The portable data acquisition unit of claim 51, wherein the microprocessor is configured to mark sleep disordered breathing events to identify them to a user.

53. (new) A method of collecting sleep session data for the purpose of identifying sleep disordered breathing of a patient, the method comprising:

- a. providing a portable data acquisition unit to the patient, the data acquisition unit being configured to collect pressure amplitude data at a rate between 6,000 and 10,000 pressure signals per second;
- b. measuring pressure amplitude signals that pertain to patient breathing at said 6,000 to 10,000 sample per second rate as the patient sleeps and recording a time at which each pressure signal is collected;

- c. downloading pressure data and time data from the data acquisition unit to a computer; and
- d. manipulating the downloaded data with the computer.

54. (new) The method of claim 53, wherein providing a portable data acquisition unit to the patient comprises providing a portable data acquisition unit to the patient that is configured for wearing by the patient as the patient sleeps.

55. (new) The method of claim 53, further comprising analyzing the pressure amplitude data and the time data to identify sleep disordered breathing events.

56. (new) The method of claim 55, wherein analyzing the pressure data and time data comprises analyzing the data with the data acquisition unit prior to downloading.